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EXAMINER

MARTIN, NICHOLAS A

ART UNIT

PAPER NUMBER

2154

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,353

Applicant(s)

MORI ET AL.

Examiner

Nicholas Martin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/22/02, 11/17/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-24 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 9, 11-12, 19 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk et al. (hereinafter Kadyk), US 2002/0099727, in view of Kaufman, Steven B. (hereinafter Kaufman), US 6,034,621.

4. As per claim 1, Kadyk teaches a data center for keeping the sameness between data in client terminal and data in a server through a communication link, said data center comprising:

a server for storing data to be kept same as data in said client terminal

(Paragraphs [0002] and [0029]);

data transmission means for sending data to be kept same as the data in said client terminal to said client terminal (Paragraphs [0053] and [0065]);

signal transmission means for sending a signal to said client terminal (Paragraph [0021]).

5. Kadyk does not explicitly teach a data center comprising:
checking the sameness at predetermined timing; and

control means for controlling the signal transmission performed by said signal transmission means based on the result of the transmission by said data transmission means.

6. Kaufman teaches a data center for keeping synchronization between devices comprising:

checking the sameness at predetermined timing (Col. 8, lines 37-41, lines 49-51);
and

control means for controlling the signal transmission performed by said signal transmission means based on the result of the transmission by said data transmission means (Col. 6, lines 18-24).

7. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kaufman and Kadyk because they both deal with synchronizing data between terminals of a communication network. Furthermore, the teaching of Kaufman to allow checking the sameness at predetermined timing and control means for controlling the signal transmission performed by said signal transmission means based on the result of the transmission by said data transmission means would improve the functionality of Kadyk's system by allowing for synchronization to occur without a user/client's input and to control transmission of updated data based on the result of previous signal transmission in order to guarantee a synchronized result.

8. As per claim 2, Kadyk teaches the data center according to claim 1, wherein said client terminal is a portable information terminal (Paragraph [0005]).

9. Kadyk does not explicitly teach the data center according to claim 1, wherein said communication link is a radio link.

10. Kaufman teaches a data center wherein said communication link is a radio link (Col. 5, lines 61-64).

11. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kaufman and Kadyk because they both deal with synchronizing data between terminals of a communication network. Furthermore, the teaching of Kaufman to allow wherein said communication link is a radio link would improve the functionality of Kadyk's system by allowing for communication via a radio link by increase power consumption of the client terminal synchronizing data through the incoming radio frequency.

12. As per claim 3, Kadyk teaches the data center according to claim 1, wherein said control means stops the signal transmission by said signal transmission means if the transmission by said data transmission means results in an error (Paragraph [0064]).

13. As per claim 4, Kadyk teaches the data center according to claim 3, wherein said control means causes the signal transmission by said signal transmission means to be resumed if the data transmission performed by said data transmission means after the signal transmission by said signal transmission means is stopped succeed (Paragraph [0064]).

14. As per claim 9, Kadyk teaches the data center according to claim 1, wherein, when said data transmission means received a send request from said client terminal,

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said data transmission means sends data to said client terminal based on said send request (Paragraphs [0033] and [0049-0050]).

15. As per claim 11, Kadyk teaches a data synchronization system for keeping the sameness between data in client terminal and data in a server through a communication link, said system comprising:

signal transmission for sending a signal for checking the sameness to said server.

16. Kadyk does not explicitly teach a data synchronization system comprising:
checking sameness at predetermined timing;

transmission result detection means for detecting the result of transmission performed by said signal transmission means; and

control means for controlling said client terminal based on the transmission result detected by said transmission result detection means.

17. Kaufman teaches a data synchronization system comprising:

checking sameness at predetermined timing (Col. 8, lines 37-41, lines 49-51);

transmission result detection means for detecting the result of transmission performed by said signal transmission means (Col. 8, lines 15-25); and

control means for controlling said client terminal based on the transmission result detected by said transmission result detection means (Col. 6, lines 18-24; Col. 8, lines 25-30).

18. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kaufman and Kadyk because they both deal with

synchronizing data between terminals of a communication network. Furthermore, the teaching of Kaufman to allow checking the sameness at predetermined timing, transmission result detection means for detecting the result of transmission performed by said signal transmission means and control means for controlling said client terminal based on the transmission result detected by said transmission result detection means would improve the functionality of Kadyk's system by allowing for synchronization to occur without a user/client's input and to control transmission of updated data based on detection result of previous signal transmission in order to guarantee a synchronized result.

19. As per claim 12, Kadyk teaches a client terminal for keeping the sameness between data in said client terminal and a server though a communication link, said client terminal comprising:

receiving means for receiving data to be kept same as data in said server and a signal for checking the sameness, said data being sent to said client terminal when needed (Paragraphs [0021], [0053] and [0065]);

processing means for performing a predetermined process based on the receiving status detected by said receiving status detecting means (Paragraphs [0004], [0038] and [0050]).

20. Kadyk does not explicitly teach a client terminal comprising:

checking sameness at predetermined timing;

receiving status detecting means for detecting the receiving status of said signal for checking the sameness sent at said predetermined timing.

21. Kaufman teaches a client terminal for keeping synchronization between devices comprising:

checking sameness at predetermined timing (Col. 8, lines 37-41, lines 49-51);

receiving status detecting means for detecting the receiving status of said signal for checking the sameness sent at said predetermined timing (Col. 8, lines 15-30, lines 37-41, lines 49-51);

22. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kaufman and Kadyk because they both deal with synchronizing data between terminals of a communication network. Furthermore, the teaching of Kaufman to allow checking the sameness at predetermined timing and receiving status detecting means for detecting the receiving status of said signal for checking the sameness sent at said predetermined timing would improve the functionality of Kadyk's system by allowing for synchronization to occur without a user/client's input and to for the detection of the status of a previous signal transmission in order to guarantee a synchronized result.

23. Claim 19 does not teach or define any new limitations above claims 1 and 12, and therefore is rejected for similar reasons.

24. Claim 21 does not teach or define any new limitations above claims 1, 3-4 and 11, and therefore is rejected for similar reasons.

25. As per claim 22, Kadyk teaches the data synchronization method according to claim 21, wherein said client terminal requests for the transmission of said data to be

kept same as data in said server if said client terminal cannot receive said signal (Paragraphs [0002], [0021], [0029] and [0033]).

26. Claim 23 does not teach or define any new limitations above claims 3-4, and therefore is rejected for similar reasons.

27. Claims 5-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk and Kaufman, in view of Crockett et al. (hereinafter Crocket), US 2002/0043987.

28. As per claim 5, Kadyk and Kaufman do not explicitly teach the data center according to claim 1, wherein the sender telephone number of said data transmission means and the sender telephone number of said signal transmission means are different from each other so that, when an incoming receipt occurs at said client terminal, it can be determined whether the receipt is the receipt of data sent from said data transmission means or the receipt of a signal sent from said signal transmission means.

29. Crocket teaches a data center wherein the sender telephone number of said data transmission means and the sender telephone number of said signal transmission means are different from each other so that, when an incoming receipt occurs at said client terminal, it can be determined whether the receipt is the receipt of data sent from said data transmission means or the receipt of a signal sent from said signal transmission means (Paragraph [0024]).

30. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Crocket, Kaufman and Kadyk because they all deal with delivery of data between terminals over a communication network. Furthermore, the

teaching of Crocket to allow wherein the sender telephone number of said data transmission means and the sender telephone number of said signal transmission means are different from each other so that, when an incoming receipt occurs at said client terminal, it can be determined whether the receipt is the receipt of data sent from said data transmission means or the receipt of a signal sent from said signal transmission means would improve functionality of Kadyk and Kaufman's system by adding versatility to transmission via telephonic networks along with the capability to record which incoming receipt is received in order to offset any differences in the time needed to setup the system for either data transmission to update the data or signal transmission to check synchronization.

31. As per claim 6, Kadyk does not explicitly teach the data center according to claim 1, wherein a transmission frequency used by said signal transmission means and a transmission frequency used by said data transmission means are different from each other so that, when receipt occurs at said client terminal, it can be determined whether the receipt is the receipt of data sent from said data transmission means or the receipt of a signal sent from said signal transmission means.

32. Kaufman teaches a data center according to claim 1, wherein a frequency is used by said signal and data transmission means (Col. 5, lines 61-64).

33. Crocket teaches a data center wherein signal transmission means and data transmission means are different from each other so that, it can be determine from which transmission means the receipt is from (Paragraph [0024]).

34. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Crocket, Kaufman and Kadyk because they all deal with delivery of data between terminals over a communication network. Furthermore, the teaching of Kaufman to allow wherein a frequency is used by said signal and data transmission means and the teaching of Crocket to allow wherein signal transmission means and data transmission means are different from each other so that, it can be determine from which transmission means the receipt is from would improve the functionality of Kadyk's system by utilizing differing frequencies for data and signal transmission along with the capability to record which incoming receipt is received in order to offset any differences in the time needed to setup the system for either data transmission to update the data or signal transmission for a data synchronization check.

35. As per claim 8, Kadyk teaches the data center according to claim 1, wherein the signal transmission means is sent as infrared (Paragraph [0012]).

36. Kadyk and Kaufman do not explicitly teach the data center according to claim 1.

37. Crocket teaches a data center according to claim 1, wherein when a receipt occurs at said client terminal, it can be determine from which transmission means the receipt is acquired (Paragraph [0024]).

38. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Crocket, Kaufman and Kadyk because they all deal with delivery of data between terminals over a communication network. Furthermore, the teaching of Crocket to allow wherein when a receipt occurs at said client terminal, it can be determine from which transmission means the receipt is acquired would improve the

functionality of Kadyk's system by adding the capability to record which incoming receipt is received in order to offset any differences in the time needed to setup the system for either data transmission to update the data or signal transmission for a data synchronization check.

39. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk, Kaufman and Crocket, in view of Colnot, Cedric (hereinafter Colnot), US 6,748,359.

40. As per claim 7, Kadyk and Kaufman do not explicitly teach the data center according to claim 1, wherein the signal sent by said signal transmission means is sent as a sound wave so that, when receipt occurs at said client terminal, it can be determined whether the receipt is the receipt of data sent from said data transmission means or the receipt of a signal sent from said signal transmission means.

41. Colnot teaches a data center wherein a signal is sent as a sound wave between devices (Col. 4, lines 52-54).

42. Crocket teaches a data center wherein it can be determine from which transmission means the receipt is from (Paragraph [0024]).

43. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Colnot, Crocket, Kaufman and Kadyk because they all deal with transmitting data over a communication network. Furthermore, the teaching of Colnot to allow wherein a signal is sent as a sound wave between devices and the teaching of Crocket to allow wherein it can be determine from which transmission means the receipt is from would improve the functionality of Kadyk's system by adding the

versatility and capability of recording which incoming receipt is received via another communication protocol such as a sound wave, in order to offset any differences in the time needed to setup the system for either data transmission to update the data or signal transmission for a data synchronization check.

44. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk and Kaufman, in view of Mendez et al. (hereinafter Mendez), US 2002/0035618.

45. As per claim 10, Kadyk and Kaufman do not explicitly teach the data center according to claim 1, further comprising timing setting means for setting said predetermined timing.

46. Mendez teaches a data center comprising timing setting means for setting said predetermined timing (Paragraph [0012]).

47. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mendez, Kaufman and Kadyk because they all deal with the synchronization of transmitted data over a communication network. Furthermore, the teaching of Mendez to allow timing setting means for setting said predetermined timing would improve the functionality of Kadyk's system by allowing for synchronization to occur with or without a user/client's request in order to not act as an impediment towards the system.

48. Claim 20 does not teach or define any new limitations above claim 10 and therefore is rejected for similar reasons.

49. Claims 13-14 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk and Kaufman, in view of Crocket, and in further view of Cheah et al. (hereinafter Cheah), US 6,788,953.

50. As per claim 13, Kadyk and Kaufman do not explicitly teach the client terminal according to claim 12, further comprising:

receipt type determination means for determining the type of receipt;

connection control means for controlling connection and disconnection of a line for said receipt according to the result of the determination by said receipt type determination means.

51. Crocket teaches a client terminal comprising:

receipt type determination means for determining the type of receipt (Paragraph [0024]).

52. Cheah teaches a client terminal comprising:

connection control means for controlling connection and disconnection of a line for said receipt according to the result of the determination by said receipt type determination means (Col. 38, lines 18-36).

53. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cheah, Crocket, Kaufman and Kadyk because they all deal with transmitting data over a communication link for synchronization.

Furthermore, the teaching of Crocket to allow receipt type determination means for determining the type of receipt and the teaching of Cheah to allow connection control means for controlling connection and disconnection of a line for said receipt according to

the result of the determination by said receipt type determination means would improve the functionality of Kadyk's system by adding the capability to determine which incoming receipt is received in order to offset any differences in the time needed to setup the system for either data transmission to update the data or signal transmission for a data synchronization check and disconnection if neither is necessary or has already completed.

54. As per claim 14, Kadyk and Kaufman do not explicitly teach the client terminal according to claim 13, wherein said connection control means disconnect the line for said receipt if said receipt type determination means determines that said receipt type is the receipt of a signal sent by said signal transmission means.

55. Crocket does not explicitly teach a client terminal according to claim 13.

56. Cheah teaches a client terminal wherein said connection control means disconnect the line for said receipt if said receipt type determination means determines that said receipt type is the receipt of a signal sent by said signal transmission means (Col. 38, lines 18-36).

57. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cheah, Crocket, Kaufman and Kadyk because they all deal with transmitting data over a communication link for synchronization.

Furthermore, the teaching of Cheah to allow wherein said connection control means disconnect the line for said receipt if said receipt type determination means determines that said receipt type is the receipt of a signal sent by said signal transmission means would improve the functionality of Kadyk's system by incorporating a disconnect feature

for a device connected to the network when a receipt is received indicating a sameness check has occurred.

58. Claim 24 does not teach or define any new limitations above claim 13 and therefore is rejected for similar reasons.

59. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk and Kaufman, in view of Cheah.

60. As per claim 15, Kadyk teaches the client terminal according to claim 12, further comprising:

sameness status determination means for determining the sameness status of the current data and whether a signal is received or not (Paragraphs [0006-0007], [0020] and [0033]); and

display means for displaying the determination result of said sameness status determination means (Paragraphs [0022] and [0058]).

61. Kadyk does not teach the client terminal comprising:

determination means based on received signal strength.

62. Cheah teaches a client terminal comprising:

determination means based on received signal strength (Col. 17, lines 55-67).

63. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cheah, Kaufman and Kadyk because they deal with the synchronization of data over a communication network. Furthermore, the teaching of Cheah to allow determination means based on received signal strength

would improve the functionality of Kadyk's system by eliminating failed transmissions and signals by evaluating the strength of a signal to see if a device is in range of another.

64. As per claim 16, Kadyk teaches the client terminal according to claim 15, wherein said sameness status determination means determines that the sameness between data in said client terminal and data in said server is not kept if it is not received (Paragraph [0013]).

65. Kadyk does not teach the client terminal wherein determination means based on received signal strength.

66. Cheah teaches a client terminal wherein determination means based on received signal strength (Col. 17, lines 55-67).

67. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cheah, Kaufman and Kadyk because they deal with the synchronization of data over a communication network. Furthermore, the teaching of Cheah to allow determination means based on received signal strength would improve the functionality of Kadyk's system by indicating failed transmissions and signals by evaluating the strength of a signal to see if a device is in range of another.

68. As per claim 17, Kadyk teaches the client terminal according to claim 15, further comprising the transmission request means for requesting for the transmission of data to be kept same as data in said server from said server if said sameness status determination means determines that the data is not kept same as the data in said server (Paragraphs [0002], [0021] and [0029]).

69. As per claim 18, Kadyk and Kaufman do not explicitly teach the client terminal according to claim 12, wherein a line for said received signal is disconnected if said receiving status detecting means detects that the receiving status of said signal is normal.

70. Cheah teaches a client terminal wherein a line for said received signal is disconnected if said receiving status detecting means detects that the receiving status of said signal is normal (Col. 17, lines 55-67; Col. 28, lines 40-47; Col. 38, lines 18-36).

71. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cheah, Kaufman and Kadyk because they deal with the synchronization of data over a communication network. Furthermore, the teaching of Cheah to allow wherein a line for said received signal is disconnected if said receiving status detecting means detects that the receiving status of said signal is normal would improve the functionality of Kadyk's system by allowing for a device to disconnect and save network resources upon a signal strength that is normal because that would indicate no deterrent from devices over the network from communicating data and synchronizing between them.

Conclusion

72. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Data Synchronization System, Data Synchronization Method, Data Center, And Client Terminal".

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- i. US 5,832,489 Kucala, Gregory R.
- ii. US 5,896,566 Averbuch et al.

A shortened statutory period for reply to this Office action is set to expire in THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Martin whose telephone number is (571) 272-3970. The examiner can normally be reached on Monday - Friday 8:30 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3970.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JOHN A. FOLLANSBEE
SUPERVISOR EXAMINER
TECHNICAL CENTER 2100

nam
February 17, 2005